

### Biobased hot melt

**Application:** Hot melt adhesive for high speed packaging lines; tray forming, box closing, wrap-around and similar applications.



**Characteristics/ Directions for use:** Low viscosity hot melt adhesive that is fast setting with good color and heat stability in the melt.

Food contact regulations: status of the product upon request.  
Jowatherm® GROW 853.45 contains 47% USDA certified biobased content and exceeds minimum USDA certified biobased content for adhesives.

Customer trials are required.

Processing temperature [°C]:	150 – 180 (302 – 356 °F)
Appearance:	yellow, translucent
Density at 20 °C (68 °F) [g/cm <sup>3</sup> ]:*	approx. 0.95 ± 0.02 (7.9 ± 0.17 lb/gal)
Softening point [°C]:*	approx. 110 ± 5 (230 ± 9 °F) (Ring & Ball)
Open time at 160 °C (302 °F) [s]:*	approx. 7 ± 1
Setting time at 160 °C (302 °F) [s]:*	approx. 1.5 ± 0.5

\* According to Jowat test method.

Our Application Technology Department and our Application Specialists will provide technical data to assist you in your choice of an appropriate adhesive for your requirements. Please observe the information in the section "Remarks".

**General bonding requirements:**

The properties (e.g. surface tension, plasticiser content.....) and the conditioning of the substrates, as well as the processing conditions (e.g. ambient temperatures, humidity...) will influence the processes of joining and bonding. Customer tests under consideration of everyday production conditions are therefore absolutely necessary to define stable process parameters and to ensure that the product is fit for purpose. For best bonding results, the materials to be bonded should be free of dust, oil and grease, and be dry. Ideally, the minimum temperature should be at 18 °C (64 °F). Avoid draught.

**Specification:** Viscosity at 160 °C (320 °F) 1,450 ± 350 [mPa·s]:  
(Brookfield, Cone/Plate, Spindle 7, 100 RPM)

**Cleaning:** Mechanical preliminary cleaning while hot (e.g. by scraping with a spatula). Remove any residues in the application environment when cold with Jowat® Cleaner 402.40.

**Storage:** The product should remain stored in properly closed original containers, cool and dry. For best before date, please refer to label on the packaging unit. After the elapse of the best-before-date it is essential that you again verify that the product is fit for your intended application.

**Packaging:** Information about packaging types and units is available upon request.

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**Please refer to the last page of this technical data sheet for additional information.**



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**Remarks:** For further information concerning handling, transport and disposal, please refer to the Safety Data Sheet.

The information on this data sheet is based on test results from our laboratories as well as on reported experience gained in the field by our customers. It can, however, not cover all parameters for each specific application and is therefore not binding upon Jowat, nor should it be relied upon in lieu of your own required testing. The information given in this leaflet represents neither a performance guarantee nor a guarantee of properties, nature, condition, state or quality. No liability may be derived from the information contained herein nor from the information provided by our free technical advisory service.

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### JOWAT Corporation Information

Gluing, as one of the most efficient methods of bonding, is constantly expanding into new areas of application. At the same time, the number of substrates to be bonded is also growing at an unprecedented rate. New methods and equipment to process adhesives are constantly being improved and developed.

The in-house R&D department of JOWAT Corporation ("JOWAT") is responding with intensive efforts to keep pace with these constant changes. A highly trained and qualified team of chemists and engineers are using the latest techniques and the brightest ideas to provide adhesives that meet the needs of our customers for new and innovative applications.

We have assimilated information based on test results from our laboratories as well as on experience gained in the field by working with our customers. This information is available by contacting our technical service department. Customers who have obtained information and thereafter undertake modifications during a running production are invited to provide this information to us to assist us in maintaining our field information and obtain any updated information we may have. However, any technical information we provide is provided without any representation or warranty and for informational and assistance purposes only, and must not be relied upon or used to replace field testing by the user of the adhesive in the actual application for which the adhesive is to be used. Our laboratory testing and field information obtained cannot simulate all eventualities that may occur in each specific application, and for that reason we cannot and do not insure performance or results in specific applications.

Any user of adhesives manufactured by JOWAT must test the adhesive(s) for suitability in each individual application, performing such tests in connection with the first use of a sample as well as all subsequent modifications during any ongoing production.

In addition to such other tests the users of our adhesives deem appropriate to insure suitable bonding, all users of adhesives manufactured by JOWAT should test the adhesives for suitability on original parts equal to normal processing conditions. The adhesive bond should then also be tested and assessed by subjecting it to the actual stress and conditions it will undergo in all of its intended and reasonably foreseeable uses. ALL OF THESE TESTS ARE ABSOLUTELY NECESSARY AND MUST BE PERFORMED.

**IMPORTANT:** Any products (collectively the "Products") manufactured by JOWAT, its parent, affiliates and subsidiaries (collectively "Seller"), as well as all services relating to such Products are subject to the JOWAT Corporation General Terms and Conditions. THE WARRANTY CONTAINED HEREIN IS EXCLUSIVE AND EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, WRITTEN, ORAL, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN ADDITION, SELLER SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE OR INJURY OF ANY NATURE, EITHER DIRECT, INDIRECT OR CONSEQUENTIAL, IN CONNECTION WITH OR RESULTING FROM THE PURCHASE, USE OR SALE OF THE PRODUCTS. SELLER'S SOLE AND EXCLUSIVE OBLIGATION UNDER THIS WARRANTY AND BUYER'S SOLE AND EXCLUSIVE REMEDY, SHALL BE LIMITED TO CREDITING BUYER WITH THE INVOICE VALUE OF ANY NONCONFORMING PRODUCTS UPON THEIR RETURN TO SELLER OR REPAIRING OR REPLACING ANY NONCONFORMING PRODUCTS, IN SELLER'S SOLE DISCRETION. If an additional copy of the General Terms and Conditions is needed, please contact JOWAT.

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